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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,971	09/04/2003	Peter P. Altice JR.	M4065.0713/P713	4469
45374	7590	05/22/2007		
DICKSTEIN SHAPIRO LLP 1825 EYE STREET, NW WASHINGTON, DC 20006			EXAMINER MARIAM, DANIEL G	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 05/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/653,971

Applicant(s)

ALTICE ET AL.

Examiner

DANIEL G. MARIAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-24, 26, 27, 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 28, 31-32 is/are rejected.
- 7) ☒ Claim(s) 4, 10, 11 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

1. In response to the Office Action mailed on November 14, 2006 applicants have submitted an amendment on February 14, 2007 amending claims 1-13, 19, adding new claims 25-32, and arguing to traverse the rejections of claims 1-24.

Examiner's Note

2. Examiner has cited particular columns and line numbers or figures in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Rejections - 35 USC § 112

3. Claims 31 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 31 recites the limitation "first determining said light has saturated a first pixel of said pixels; second determining said light has not saturated a second pixel of said pixels" in lines 5-7. It is unclear whether the determination is carried out on the pixels before or after having their exposures varied. Please clarify.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 31 and 32 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The “changing of the aperture size and orientation during the saturation operation” critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Knowing the aperture size and location are essential because the light is saturated/not saturated based on at least one of aperture size and aperture location (See for example, paragraph 0022 of the specification).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 6-8, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cochran, et al. (6,872,895).

With regard to claim 1, given the broadest reasonable interpretation, Cochran, et al. discloses a pixel array having an active, i.e., transmissive, imaging area and a non-active area, i.e., opaque area, said pixel array having a plurality of first pixels in said active area and a plurality of second pixels in said non-active area; and a mask, i.e., blocking or substrate, having a plurality of apertures, i.e., apertures having a desired size and location, respectively located over and exposing said second pixels (See for example, Fig. 4, and the associated text). Although Cochran, et al does not identify the pixels as first pixels and second pixels, it would have been obvious to one having ordinary skill in the art to recognize the individual pixels

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located/populated in the in the X-Y locations in the system of Cochran, et al to exhibit separate/different pixels because they are programmed into either a transmissive state or an opaque state, and since the apertures located on the top of the mask or blocking or substrate of Cochran, et al is programmable, it would indeed have the capability to expose the individual pixels located in either state/region as illustrated in Figure 4.

With regard to claim 2, the imager according to claim 1, wherein at least some of said apertures of said mask are of different sizes (See Fig. 4b).

With regard to claim 3, the imager according to claim 2, wherein said different sized apertures expose said second pixels to differing amounts of light, i.e., larger and smaller apertures as illustrated in Fig. 4 expose the pixels to larger and smaller amount of light respectively (See for example, Fig. 4b).

With regard to claim 6, the imager according to claim 2, wherein said second pixels comprise at least one row of pixels (which reads on pixels located on the X-component) outside said active area (See Fig. 4, and the associated text).

With regard to claim 7, the imager according to claim 2 wherein said second pixels comprise at least one column of pixels (given the broadest reasonable interpretation, it reads on pixels located on the Y-component) outside said active area (See Fig. 4, and the associated text).

With regard to claim 8, the imager according to claim 2 wherein said second pixels are a different size from said first pixels (See Fig. 4b).

With regard to claim 28, the imager apparatus according to claim 3, wherein only said aperture sizes vary said respective exposures of said second pixels to said light (See for example, Fig. 4b).

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8. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cochran, et al (6,872,895) in view of Dyck, et al (6,529,239).

With regard to claim 5, Cochran, et al (hereinafter "Cochran") discloses all of the claimed subject matter as already addressed above in paragraph 7, and incorporated herein by reference. Cochran does not expressly call for the mask being made of a metal. However, Dyck, et al (col. 10, line 16) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Dyck, et al into the system of Cochran if for no other reason than to provide a mask made of metal, and to do so would at least give higher precision in the uniformity of pixel sizes (col. 10, lines 17-18).

With regard to claim 9, the imager according to claim 1, wherein said second pixels are covered by a color filter (See for example, col. 10, lines 14-17; col. 2, lines 54-56 of Dyck, et al).

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claim 31 is rejected under 35 U.S.C. 102(e) as being anticipated by Bushaw, et al (4,408,231).

With regard to claim 31, as best understood, Bushaw, et al discloses shining light on a

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plurality of pixels; varying respective exposures of said pixels to said light, first and second determining said light has saturated a first pixel (and has not saturated a second pixel) of said pixels (which corresponds to the determination of saturation and no saturation level based on a predetermined threshold) (See for example, col. 2, lines 5-22; col. 6, line 10 – col. 8, line 34; and Fig. 1); calibrating, i.e., calibrating and/or adjusting, a gain characteristic for image formation based on said respective exposures of said first and second pixels (See for example, col. 2, lines 22-30; col. 8, col. 12, line 18 – 22; col. 19, lines 23-50; and col. 22, lines 30-55).

Allowable Subject Matter

11. Claims 12-24, 26-27 and 29-30 are allowed. The closest prior art of Cochran, et al. does not disclose or fairly suggest 1) determining a light intensity threshold for saturation of said second pixels based on varying exposures corresponding to said varying aperture sizes; and determining an integration time of the first pixels based on the determined light intensity; and 2) measuring light received at said second pixels exposed by the varying sized apertures; converting said measured light received from an analog to a digital signal; and calibrating said analog to digital conversion using the digital signal. It is for these reasons and in combination with all of the other elements of the claims, that claims 12-24, 26-27 and 29-30 are allowable over the prior art of Cochran, et al.

12. Claims 4, 10-11, 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

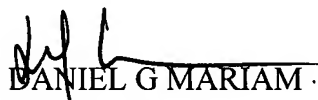
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 5833507 and 6272207.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DANIEL G MARIAM
Primary Examiner
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May 16, 2007